

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1-4. (Canceled)

5. (Currently Amended) A display system comprising:

a plurality of pixels, each of said plurality of pixels comprising at least a transistor and an EL (electro-luminescent) element having a first electrode and a second electrode;

a sensor for obtaining an information signal of an environment;

a CPU (central processing unit) for converting said information signal of the environment supplied from said sensor into a correction signal;

an EL driving power source; and

a voltage changer connected to receive the correction signal and an output of the EL driving power source, and configured to produce an output for changing a potential applied to the EL element that varies based on [[said]] the correction signal, ~~and~~

an EL driving power source connected to said voltage changer,

wherein the output potential of the [[said]] voltage changer is electrically connected to the second electrode of the EL element via a switch,

wherein the first electrode of the EL element is electrically connected to a power supply line via the transistor of the pixel including the EL element, and

wherein the switch is provided [[in an]] external portion to the pixels.

6. (Original) A display system according to claim 5, wherein said information signal comprises a user's living-body information.

7. (Previously Presented) A display system according to claim 5, wherein said plurality of pixels, said sensor, said CPU and said voltage changer are formed on a same substrate.

8. (Previously Presented) A display system according to claim 5, wherein said EL (electro-luminescent) element comprises an organic material or an inorganic material.

9. (Previously Presented) A display system according to claim 5, wherein said display system is incorporated in one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

10. (Currently Amended) A display system comprising:

a plurality of pixels, each of said plurality of pixels comprising at least an EL (electro-luminescent) element having two electrodes with an EL layer interposed therebetween and a current control thin film transistor electrically connected to one of said two electrodes of said EL element;

an EL driving power source; and

a voltage changer connected to receive an information signal of an environment and an output of the EL driving power source, and to produce an output potential electrically connected to the other of said two electrodes of said EL element via a switch, wherein the voltage changer is configured to vary the output potential; ~~and an EL driving power source connected to said voltage changer, wherein a potential applied to the other of said two electrodes of said EL element is changed by said voltage changer based on [[an]] the information signal, of an environment; and~~

wherein the switch is provided ~~[[in an]] external portion to the pixels.~~

11. (Original) A display system according to claim 10, wherein said information signal comprises a user's living-body information.

12. (Previously Presented) A display system according to claim 10, wherein said display system is incorporated in one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

13-17. (Canceled)

18. (Currently Amended) An active matrix display device comprising:

~~a voltage changer;~~

a sensor for obtaining an information signal of an environment;

a voltage changer connected to receive an output of an EL driving power source and a corrected potential generated by converting the information signal, and to generate an output potential that varies based on the corrected potential; and

a plurality of pixels, each of said plurality of pixels comprising:

at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and

an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer,

~~wherein said information signal is converted to a corrected potential and said corrected potential applied to the other of said anode and said cathode is changed by said voltage changer,~~

wherein [[said]] the output potential of the voltage changer is electrically connected to the other of the anode and the cathode of said EL element via a switch, and

~~wherein an EL driving power source is connected to said voltage changer, and~~

wherein the switch is provided [[in an]] external portion to the pixels.

19. (Previously Presented) An active matrix display device according to claim 18, wherein said plurality of pixels and said sensor are formed over a same substrate.

20. (Previously Presented) An active matrix display device according to claim 18, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.

21. (Original) An active matrix display device according to claim 18, wherein said information signal comprises a user's living-body information.

22. (Previously Presented) An active matrix display device according to claim 18, wherein said display device is incorporated in at least one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

23-28. (Canceled)

29. (Currently Amended) An active matrix display device comprising:

~~a voltage changer;~~

a sensor for obtaining an information signal of an environment;

a voltage changer connected to receive the information signal and an output of an EL driving power source, and to generate an output potential that varies based on the information signal; and

a plurality of pixels, each of said plurality of pixels comprising:

at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and

an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer,

~~wherein a potential of the other of said anode and said cathode is changed by said voltage changer based on said information signal;~~

wherein ~~[[said]]~~ the output potential of the voltage changer is electrically connected to the other of the anode and the cathode of said EL element via a switch, and

~~wherein an EL driving power source is connected to said voltage changer, and~~

wherein the switch is provided ~~[[in an]]~~ external portion to the pixels.

30. (Previously Presented) An active matrix display device according to claim 29, wherein said plurality of pixels and said sensor are formed over a same substrate.

31. (Previously Presented) An active matrix display device according to claim 29, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.

32. (Original) An active matrix display device according to claim 29, wherein said information signal comprises a user's living-body information.

33. (Previously Presented) An active matrix display device according to claim 29, wherein said display device is incorporated in at least one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

34. (Currently Amended) An active matrix display device comprising:
~~a voltage changer;~~

a sensor for obtaining an information signal of an environment;

a CPU (central processing unit) for converting said information signal to a corrected signal;

a voltage changer connected to receive the corrected signal and an output of an EL driving power source, and configured to produce an output potential that varies based on the corrected signal; and

a plurality of pixels, each of said plurality of pixels comprising:

at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and

an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer;

~~wherein a potential of the other of said anode and said cathode is changed by said voltage changer based on said corrected signal;~~

wherein ~~[[said]]~~ the output potential of the voltage changer is electrically connected to the other of the anode and the cathode of said EL element via a switch, and

~~wherein an EL driving power source is connected to said voltage changer; and~~

wherein the switch is provided ~~[[in an]]~~ external portion to the pixels.

35. (Previously Presented) An active matrix display device according to claim 34, wherein said plurality of pixels, said sensor, said CPU, and said voltage changer are formed over a same substrate.

36. (Previously Presented) An active matrix display device according to claim 34, further comprising an A/D (analog-to-digital) converter interposed between said sensor and said CPU, and a D/A (digital-to-analog) converter interposed between said CPU and said voltage changer.

37. (Previously Presented) An active matrix display device according to claim 34, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.

38. (Original) An active matrix display device according to claim 34, wherein said information signal comprises a user's living-body information.

39. (Previously Presented) An active matrix display device according to claim 34, wherein said display device is incorporated in at least one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

40. (Previously Presented) A display system according to claim 5, wherein the sensor comprises a CCD (charge-coupled device) or a photo-diode.

41. (Previously Presented) A display system according to claim 10, wherein the EL (electro-luminescent) element comprises an organic material or an inorganic material.

42. (Previously Presented) An active matrix display device according to claim 18, wherein the EL (electro-luminescent) element comprises an organic material or an inorganic material.

43. (Previously Presented) An active matrix display device according to claim 29, wherein the EL (electro-luminescent) element comprises an organic material or an inorganic material.

44. (Previously Presented) An active matrix display device according to claim 34, wherein the EL (electro-luminescent) element comprises an organic material or an inorganic material.

45. (Previously Presented) A display system according to claim 5, wherein the transistor is a current controlling thin film transistor.

46. (Previously Presented) An active matrix display device according to claim 18, wherein the transistor is a current controlling thin film transistor.

47. (Previously Presented) An active matrix display device according to claim 29, wherein the transistor is a current controlling thin film transistor.

48. (Previously Presented) An active matrix display device according to claim 34, wherein the transistor is a current controlling thin film transistor.

49. (Previously Presented) A display system according to claim 5, further comprising:
a switching thin film transistor electrically connected to a gate electrode of the transistor of the pixel.

50. (Previously Presented) A display system according to claim 10, further comprising:
a switching thin film transistor electrically connected to a gate electrode of the current control thin film transistor.

51. (Previously Presented) An active matrix display device according to claim 18, further comprising:
a switching thin film transistor electrically connected to a gate electrode of the transistor.

52. (Previously Presented) An active matrix display device according to claim 29, further comprising:
a switching thin film transistor electrically connected to a gate electrode of the transistor.

53. (Previously Presented) An active matrix display device according to claim 34, further comprising:

a switching thin film transistor electrically connected to a gate electrode of the transistor.

54-58. (Canceled)

59. (Previously Presented) A display system according to claim 5, wherein the transistor of the pixel comprises a monocrystalline semiconductor film.

60. (Previously Presented) A display system according to claim 10, wherein the current control thin film transistor comprises a monocrystalline semiconductor film.

61. (Previously Presented) An active matrix display device according to claim 18, wherein the active layer of the thin film transistor comprises a monocrystalline semiconductor film.

62. (Previously Presented) An active matrix display device according to claim 29, wherein the active layer of the thin film transistor comprises a monocrystalline semiconductor film.

63. (Previously Presented) An active matrix display device according to claim 34, wherein the active layer of the thin film transistor comprises a monocrystalline semiconductor film.